

B. Claims

Please amend claims 1, 3, 5, 6, 9, 12-14, 16, 17 and 20 as follows. A complete listing of all the claims appears below; this listing replaces all earlier amendments and listings of the claims.

1. (Currently Amended) A printhead substrate having a plurality of ink supply channels disposed at predetermined intervals; intervals comprising:
 - a printing element array at least two printing element arrays, each having a plurality of printing elements disposed in an area between at least two of the ink supply channels, alongside each of the ink supply channels;
 - a drive control circuit, disposed outside the area, for controlling the driving of the at least two printing element arrays; and
 - a shared wiring portion, disposed in the area, for transferring providing a signal from the drive control circuit to making each of the printing elements of the at least two printing element array, and concurrently and drivably selecting a predetermined one of the printing elements of the printing element arrays provided corresponding to the plurality of ink supply channels drivable.

2. (Original) The printhead substrate according to claim 1, wherein a first printing element array and a second printing element array are disposed along both sides of each of the ink supply channels.

3. (Currently Amended) The printhead substrate according to claim 1, further comprising a time-divisional drive control circuit that time-divisionally drives the printing elements included in the at least two printing element arrays via the drive control circuit,

wherein the shared wiring portion is a plurality of wires that transmit a control signal for specifying a sequence upon the time divisional driving.

4. (Original) The printhead substrate according to claim 3, further comprising a decoder circuit that generates a control signal for specifying a sequence upon the time divisional driving.

5. (Currently Amended) The printhead substrate according to claim [[4]] 3, wherein the time-divisional drive control circuit ~~and the decoder circuit are~~ is provided on a peripheral portion of the printhead substrate:

6. (Currently Amended) The printhead substrate according to claim 3, wherein ~~the shared wiring portion, the time-divisional drive control circuit and the decoder circuit are~~ is disposed approximately symmetrically about a center of the printhead substrate between an extension of one of the plurality of ink supply channels and an extension of its adjacent one of the plurality of ink supply channels.

7. (Original) The printhead substrate according to claim 3, further comprising:

a shift register circuit that inputs a print signal for driving the printing elements; and

a latch circuit that latches the print signal input to the shift register circuit.

8. (Original) The printhead substrate according to claim 7, wherein the shift register circuit and the latch circuit are provided on a peripheral portion of the printhead substrate.

9. (Currently Amended) The printhead substrate according to claim 7, wherein ~~the shared wiring portion, the time-divisional drive control circuit, the shift register circuit and the latch circuit are disposed approximately symmetrically about a center provided on both one side and its opposite side of the printhead substrate.~~

10. (Original) The printhead substrate according to claim 1, wherein the shared wiring portion is a matrix wiring capable of time-divisionally controlling sending an electric current so as to time-divisionally drive the printing elements.

11. (Original) The printhead substrate according to claim 1, wherein ink of different colors is supplied to each of the ink supply channels.

12. (Currently Amended) A printhead having a plurality of ink supply channels disposed at predetermined ~~intervals~~, intervals comprising:

a printing element array at least two printing element arrays, each having a plurality of printing elements disposed in an area between at least two of the ink supply channels, alongside each of the ink supply channels;

a drive control circuit, disposed outside the area, for controlling the driving of the at least two printing element arrays; and

a shared wiring portion, disposed in the area, for transferring providing a signal from the drive control circuit to making each of the printing elements of the at least two printing element array, and concurrently and drivably selecting a predetermined one of the printing elements of the printing element arrays drivable.

13. (Currently Amended) The printhead according to claim 12, wherein a first printing element array and a second printing element array of the at least two printing element arrays are disposed along both sides of each of the ink supply channels.

14. (Currently Amended) The printhead according to claim 12, further comprising a time-divisional drive control circuit that time-divisionally drives the printing elements included in the at least two printing element arrays via the drive control circuit, wherein the shared wiring portion is a plurality of wires that transmit a control signal for specifying a sequence upon the time divisional driving.

15. (Original) The printhead according to claim 14, further comprising a decoder circuit that generates a control signal for specifying a sequence upon the time divisional driving.

16. (Currently Amended) The printhead according to claim [[15]] 14, wherein the time-divisional drive control circuit and the decoder circuit are is provided on a peripheral portion of a printhead substrate.

17. (Currently Amended) The printhead according to claim 14, wherein the shared wiring portion; the time-divisional drive control circuit and the decoder circuit are is disposed approximately symmetrically about a center of a printhead substrate between an extension of one of the plurality of ink supply channels and an extension of its adjacent one of the plurality of ink supply channels.

18. (Original) The printhead according to claim 14, further comprising:
a shift register circuit that inputs a print signal for driving the printing elements; and
a latch circuit that latches the print signal input to the shift register circuit.

19. (Original) The printhead according to claim 18, wherein the shift register circuit and the latch circuit are provided on a peripheral portion of a printhead substrate.

20. (Currently Amended) The printhead according to claim 18, wherein the shared wiring portion; the time-divisional drive control circuit, the shift register circuit and the latch circuit are disposed approximately symmetrically about a center provided on both one side and its opposite side of a printhead substrate.

21. (Original) The printhead according to claim 12, wherein the shared wiring portion is a matrix wiring capable of time-divisionally controlling sending an electric current so as to time-divisionally drive the printing elements.

22. (Original) The printhead according to claim 12, wherein ink of different colors is supplied to each of the ink supply channels.

23. (Original) The printhead according to claim 12, further comprising an ink tank integrated into the printhead for supplying ink to each of the ink supply channels.

24. (Original) A printing apparatus for printing by discharging ink onto a printing medium using a printhead according to claim 23.

25. (Original) The apparatus according to claim 24, wherein the printhead is exchangeable.

26. (Original) A printing apparatus for printing by discharging ink onto a printing medium using a printhead according to claim 12.